

AMENDMENTS TO THE CLAIMS

1. (Currently Amended): A method of modulating ~~at least one photosensitive trait~~flowering time in a plant comprising

altering the level of PHYTOCHROME AND FLOWERING TIME 1 (PFT1) protein in a plant,

wherein the amino acid sequence of said PFT1 protein is ~~encoded by a nucleotide sequence hybridizing to set forth in~~ SEQ ID NO: 23 ~~under very high stringent wash conditions comprising at least one wash at 0.1x SSC, 0.1% SDS, at 60°C for 15 minutes, or has an amino acid sequence at least 45% identical to~~ SEQ ID NO: 3.

2. (Cancelled).

3. (Currently Amended): The method of claim 1, wherein said PFT1 protein has ~~the amino acid~~is encoded by the nucleotide sequence set forth in SEQ ID NO. 3 ~~or conservative variants thereof~~.

4. (Currently Amended): The method of claim 1, wherein the level of PFT1 protein is altered by ~~producing~~ transforming a plant ~~having~~ with an expression vector ~~having~~ comprising a gene encoding the PFT1 protein.

5. (Currently Amended): The method of claim 4, wherein the gene encoding the PFT1 protein has a nucleotide sequence that encodes the amino acid sequence set forth in SEQ ID NO. 3 ~~or conservative variants thereof~~.

6. (Original): The method of claim 4, wherein the gene encoding the PFT1 protein has the nucleotide sequence set forth in SEQ ID NO. 2.

7. (Currently Amended): A method of modulating ~~a photosensitive trait~~flowering time in a plant, comprising:

transforming a plant cell with an expression vector comprising a gene that encodes a PFT1 protein,

wherein ~~the amino acid sequence of~~ said PFT1 protein is ~~encoded by a nucleotide sequence hybridizing to set forth in~~ SEQ ID NO: 23 ~~under very high stringent wash conditions comprising at least one wash at 0.1x SSC, 0.1% SDS, at 60°C for 15 minutes, or has an amino acid sequence at least 45% identical to SEQ ID NO: 3; and~~

growing said plant cell into a plant under conditions that allow the expression of the PFT1 protein thereby modulating ~~a photosensitive trait~~ flowering time.

8. (Original): The method of claim 7, wherein the PFT1 protein is overexpressed in said plant.

9. (Original): The method of claim 7, wherein the PFT1 protein is encoded by a gene comprising the nucleotide sequence shown in SEQ ID NO: 2.

10. (Currently Amended): The method of claim 7, wherein the expression vector comprises a promoter selected from the group ~~comprising~~ consisting of a constitutive promoter and an inducible promoter.

11. (Original): The method of claim 7, wherein the plant is selected from the group consisting of: wheat, barley, rye, oat, flax, millet, corn, tomato, rice and tobacco plants.

12. (Cancelled).

13. (Currently Amended): A method of claim 127, wherein ~~the photosensitive trait is flowering time, and said flowering time is decreased.~~

14.- 22.(Cancelled):

23. (Currently Amended): A transgenic plant having ~~at least one~~ modulated ~~photosensitive trait~~ flowering time as compared to a wild-type plant,

wherein the transgenic plant comprises a recombinant expression vector that expresses a nucleic acid encoding a PFT1 gene,

wherein said PFT1 gene has a nucleotide sequence that ~~hybridizes to~~ SEQ ID NO: 2 ~~under very high stringent wash conditions comprising at least one wash at 0.1x SSC, 0.1% SDS, at~~

~~60°C for 15 minutes, or has an amino acid sequence at least 45% identical to~~ encodes the amino acid sequence set forth in SEQ ID NO: 3.

24. (Original): The transgenic plant of claim 23, wherein the PFT1 gene is overexpressed.

25. (Previously Presented): A recombinant nucleic acid comprising SEQ ID NO:2.

26. (Previously Presented): A recombinant nucleic acid comprising a nucleotide sequence encoding SEQ ID NO:3.

27. - 28. (Cancelled)

29. (Currently Amended): A transgenic plant comprising a recombinant expression vector that expresses the recombinant nucleic acid sequence of claims 25[[,]] or 26,~~or 27,~~

30. (Original): The transgenic plant of claim 29, wherein the recombinant nucleic acid sequence is overexpressed.

31. (Previously Presented): The transgenic plant of claim 29, wherein the recombinant nucleic acid sequence is operably linked to a promoter.

32. (Currently Amended): The transgenic plant of claim 31, wherein the promoter is selected from the group ~~comprising~~consisting of a constitutive promoter and an inducible promoter.

33. (Original): The transgenic plant of claim 29, wherein the plant is selected from the group consisting of: wheat, barley, rye, oat, flax, millet, corn, tomato, rice and tobacco plants.

34. (Currently Amended): A seed comprising a recombinant expression vector that expresses the recombinant nucleic acid of claims 25[[,]]or 26,~~or 27,~~

35. (Currently Amended): A plant tissue derived from the transgenic plant of claim 29, wherein the plant tissue comprises a recombinant expression vector that expresses a recombinant nucleic acid comprising a nucleotide sequence encoding SEQ ID NO: 3.

36. (Original): The plant tissue of claim 35, wherein said tissue is a flower.

37. - 38. (Cancelled)

39. (New) The method of claim 23, wherein the nucleotide sequence is set forth in SEQ ID NO.2.

40. (New) A plant tissue derived from the transgenic plant of claim 29, wherein the plant tissue comprises a recombinant expression vector that expresses a recombinant nucleic acid comprising SEQ ID NO: 2.